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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,567	08/11/2005	Jaroslav Cerny	66448-016-7	4574

25269 7590 02/05/2009

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EXAMINER

HAYES, BRET C

ART UNIT	PAPER NUMBER
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3641

MAIL DATE	DELIVERY MODE
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02/05/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/539,567	Applicant(s) CERNY ET AL.	
	Examiner BRET HAYES	Art Unit 3641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 12 JAN 09 have been fully considered but they are not persuasive.
2. In response to Applicants' argument that the amendment to claim 1 regarding "the joining metallic intermediate layer as consisting of a metal selected from the group consisting of steel and a nickel alloy...which excludes a metallic layer that contains a significant amount of added gas bubbles to provide the porous metal layer," examiner must disagree. It is not readily apparent why a layer consisting of a metal selected from steel and a nickel alloy excludes a porous metallic layer as disclosed in Claar. Clarification is requested. Absent any evidence of such, Claar would still appear to anticipate the claims.
3. There being nothing further in the argument, examiner must uphold the rejections, as modified to better fit the amendment, previously set forth as proper.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 – 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/55567 to Claar et al. (*Claar*).
6. Re claim 1, Claar discloses the claimed invention including multilayered steel armor **10** comprising a front-face ballistic-resistant armor layer **11**, set forth at page 6, a backing armor

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layer **13** (same), a joining metallic intermediate layer **12** which joins the front-face ballistic layer and the backing armor layer over whole surfaces thereof, Fig. 1, for example, said joining metallic intermediate layer consisting of a metal selected from the group consisting of steel and a nickel alloy containing maximally 98.0 wt% of nickel, as set forth at page 6, lines 14 – 16, said metal having a face-centered cubic crystalline lattice. With respect to whole surfaces, from Fig. 1 there would appear to be little, if any, of the porosity against the entire surfaces of layers **11** and **13**. Therefore, broadly and reasonably construing the claim language, Claar would appear to anticipate this limitation. With respect to FCC lattice, the atomic structure is well known to be manipulated in the prior art, see austenite, gamma iron, for example, which normally has a FCC lattice. Further, it is well known that the elemental metal nickel (Ni) is normally FCC. Therefore, whether explicitly disclosed by Claar as such or not, it is well known to produce a metal selected from the group consisting of steel and a nickel alloy as claimed having these atomic lattices and would be an obvious preferred material to one of ordinary skill in the art at the time the invention was made, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

7. Re claim 2, Claar further discloses the claimed invention wherein the joining metallic intermediate layer consists of a nickel alloy containing between 50.0 wt% and 98.0 wt% of nickel and between 0.1 wt% and 45.0 wt% of at least one of the alloying elements including chromium, molybdenum, manganese, niobium, titanium, iron and the rest making some other accompanying elements and usual impurities, page 3, lines 1 – 3.

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8. Re claim 3, Claar further discloses the claimed invention wherein the joining metallic intermediate layer consists of a nickel alloy containing between 5.0 wt% and 50.0 wt% of nickel and between 0.1 wt% and 40.0 wt% of at least one of the alloying elements including chromium, molybdenum, manganese, niobium, titanium, iron and the rest making some other accompanying elements and usual impurities, page 3, lines 1 – 3.

9. Re claim 4, Claar discloses the claimed invention to include from 0.1 wt% to 30.0 wt% chromium, nickel, vanadium, silicone and carbon, except for a wt% of manganese. Because manganese content is known to effect properties of steel, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include or exclude, depending upon desired properties, manganese, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

10. Re claim 5, Claar discloses the claimed invention except for explicitly at least one additional layer. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include at least one additional layer, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. In this case, the inclusion or exclusion of additional layers would be left to a skilled artisan to determine the benefits over the disadvantages thereof based upon the intended or desired use.

11. Re claim 6, Claar discloses the claimed invention expect for the explicit recipe. Because manipulation of alloys is well known in the art, and the manipulations normally include the recited elements therein, it would have been obvious to one having ordinary skill in the art at the

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time the invention was made to include these elements, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. In this case, the manufacture of steel or nickel alloys is well known and the decision to implement known elements into a metallic matrix in order to achieve an expected result does not require any inventiveness of a skilled artisan.

Conclusion

Any inquiry concerning this communication should be directed to Bret Hayes at telephone number (571) 272 – 6902 or email address bret.hayes@uspto.gov, which is preferred. The examiner can normally be reached Monday through Friday from 5:30 am to 2:00 pm, Eastern Standard Time.

The Central FAX Number is **571-273-8300**.

If attempts to contact the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone, can be reached at (571) 272 – 6873.

/Bret Hayes/

Examiner, Art Unit 3641

5-Feb-09